

AMERICAN

MASSACHUSETTS
AGRICULTURAL
COLLEGE.



BEE JOURNAL

GEORGE W. YORK,
Editor.

CHICAGO, ILL., FEBRUARY 14, 1901.

FORTY-FIRST YEAR
No. 7.

WEEKLY



MR. GARIEL,
*A Parisian Apiarist, and one of the large bee-exhibitors
At the Exposition in 1900.*

THE AMERICAN BEE JOURNAL

PUBLISHED WEEKLY BY

GEORGE W. YORK & CO.

144 & 146 Erie St., Chicago, Ill.

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

IMPORTANT NOTICES:

The Subscription Price of this journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50c a year extra for postage. Sample copy free.

The Wrapper-Label Date of this paper indicates the end of the month to which your subscription is paid. For instance, "Dec 00" on your label shows that it is paid to the end of December, 1900.

Subscription Receipts—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows you that the money has been received and duly credited.

Advertising Rates will be given upon application.

Reformed Spelling—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "d" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound. Also some other changes are used.

The Bee-Keeper's Guide

Or, Manual of the Apiary,

—BY—
PROF. A. J. COOK.

460 Pages—16th (1899) Edition—18th Thousand—\$1.25 postpaid.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to-day. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without **THE BEE-KEEPER'S GUIDE**.

This 16th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to **GIVE AWAY** to our present subscribers, for the work of getting **NEW** subscribers for the American Bee Journal.

Given for TWO New Subscribers.

The following offer is made to **PRESENT** subscribers only, and no premium is also given to the two **NEW** subscribers—simply the Bee Journal for one year:

Send us **TWO NEW SUBSCRIBERS** to the Bee Journal (with \$2.00), and we will mail you a copy of Prof. Cook's book **FREE** as a premium. Prof. Cook's book alone sent for \$1.25, or we club it with the Bee Journal for a year—both for only \$1.75. But surely anybody can get only **TWO NEW SUBSCRIBERS** to the Bee Journal for a year, and thus get the book as a premium. Let every body try for it. Will **YOU** have one?

GEORGE W. YORK & CO.,
144 & 146 Erie Street, CHICAGO, ILL.

ALFALFA
OR
BASSWOOD

THE BEST WHITE Extracted Honey

ALL IN 60-POUND TIN CANS.

**ALFALFA
HONEY*******

This is the famous White Extracted Honey gathered in the great Alfalfa regions of the Central West. It is a splendid honey, and nearly everybody who cares to eat honey at all can't get enough of the Alfalfa extracted.

**BASSWOOD
HONEY*******

This is the well-known light-colored honey gathered from the rich, nectar-laden basswood blossoms in Wisconsin. It has a stronger flavor than Alfalfa, and is preferred by those who like a distinct flavor in their honey.

We have a good stock of the fine **WHITE ALFALFA** and **WHITE BASSWOOD EXTRACTED HONEY** that we can ship by return freight. Most bee-keepers must have sold all their last year's crop long before now, and will be ready to get more with which to supply their customers. All who have had any acquaintance with the above-named honeys know how good they are. Why not order at once, and keep your trade supplied?

Prices of Either Alfalfa or Basswood Honey:

(For the purpose of selling again.)

A sample of either, by mail, 8 cents; samples of both, 15 cents—to pay for package and postage. By freight—one 60-pound can, 9½ cents per pound; two cans, 9 cents per pound; four or more cans, 8½ cents per pound. Cash must accompany each order. If ordering two or more cans you can have half of each kind of honey, if you so desire. The cans are boxt. This is all

Absolutely Pure Bees' Honey,

The finest of their kinds produced in this country.

Read Dr. Miller's Testimony on Alfalfa Honey:

I've just sampled the honey you sent, and it's prime. Thank you. I feel that I'm something of a heretic, to sell several thousand pounds of honey of my own production and then buy honey of you for my own use. But however loyal one ought to be to the honey of his own region, there's no denying the fact that for use in any kind of hot drink, where one prefers the more wholesome honey to sugar, the very excellent quality of alfalfa honey I have received from you is better suited than the honeys of more market flavor, according to my taste.

McHenry Co., Ill.

C. C. MILLER.

Order the Above Honey and then Sell It.

We would suggest that those bee-keepers who did not produce enough honey for their home demand this year, just order some of the above, and sell it. And others, who want to earn some money, can get this honey and work up a demand for it almost anywhere.

Address,

GEORGE W. YORK & CO., 144 & 146 Erie St., Chicago, Ill.

26 cents Cash paid for Beeswax.

low, upon its receipt, or 28 cents in trade. Impure wax not taken at any price.

Address as follows, very plainly,

GEORGE W. YORK & CO., 144 & 146 Erie St., CHICAGO.

This is a good time to send in your Beeswax. We are paying 26 cents a pound—**CASH**—for best yellow.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 THE OLDEST BEE-PAPER IN AMERICA

41st YEAR.

CHICAGO, ILL., FEBRUARY 14, 1901.

No. 7.

Editorial.

Only One National Association.—Rev. A. B. Mettler, of Will Co., Ill., wrote us as follows, Feb. 1st:

1. Is the National Bee-Keepers' Association now in actual existence as the embodiment of the National Bee-Keepers' Union, the United States Bee-Keepers' Union, and the North American Bee-Keepers' Association?

2. And in consequence have these last three gone out of existence? Your quotation of Editor Root, on page 67, seems to imply this much.

3. And if so, when was it effected, where is its headquarters, and who are its officers?

If an amalgamation exists so that there is but one truly National Society instead of two or three or more, I think I would like to unite with it; for then something could be done efficiently, as all will pull together, and not pull somewhat together and somewhat apart, as must be the case where several societies are organized as "National" in the same interests.

4. What is the admission fee?

5. The American Bee Journal for Jan. 31st has arrived. I congratulate you upon removal of your office to a more convenient place. But say, do street cars run up Wells street to Erie street? If not, how near do they go?

6. I am 57 years old to-day, but have had only one birthday. If you can't guess how it is I can tell you later on, if you wish to know.

A. B. METTLER.

ANSWERS.—1. The National Bee-Keepers' Association is now the only national organization of bee-keepers in existence. The National Bee-Keepers' Union was organized some 15 years ago for the special purpose of defense, never held a meeting, but did successful work until about a year ago, when it was amalgamated with the United States Bee-Keepers' Union, and the organization resulting called the National Bee-Keepers' Association. About five years ago the original national bee-keepers' organization, which was started over 30 years ago, changed its name to the North American Bee-Keepers' Association. Then at the Lincoln, Nebr., convention in 1898 the name was changed to the United States Bee-Keepers' Union. This left two bee-keepers' unions in the field, both being national in character, and were the two that united into one society about a year ago.

2. So, as before stated, there is just one—the National Bee-Keepers' Association—now in America.

3. Its headquarters are at Forest City, Iowa, where its general manager, Eugene Secor, resides. The full list of officers was published on the first editorial page of last week's Bee Journal.

4. The annual dues, or admission fee, is \$1.00.

5. Yes, the street cars run within one-half block of our new office, at 144 and 146 Erie street. The Wells street cars can be taken on what is known as the down-town loop, and for 5 cents you can come to our office from the center or main business part of Chicago. If one happens to get on a North Clark street car there will be no harm done, as this line crosses Erie street two and one-half blocks east of our office. But the least walking will be done by taking the Wells street cars.

6. We are usually not very good guessers, and so you will have to explain about your having had "only one birthday."

Management for Comb Honey.—Mr. L. Stachelhausen gives his method of producing comb honey as follows, in Gleanings in Bee-Culture:

As soon as the honey-flow commences, and the time arrives when we think it is best to set supers with sections on top of our hives, a hive is prepared with starters only. We bring it to the hive selected for the new manipulation. The old hive is removed from the bottom-board, and set aside to be handy for the following manipulation. The new hive is set on the old stand, and an empty hive-body on top of it. In all these operations I use smoke, and handle the bees somewhat roughly to cause them to fill themselves with honey. One of the brood-combs, with bees and all, is put into the new hive, and then all the bees brushed from every frame into this hive. The most important thing in this operation is, that the bees fill themselves with honey. A little sprinkling with a solution of sugar in water can be used if the bees do not suck up the open honey.

The combs from which the bees are brushed into the new hive are assorted into different empty bodies near by—brood-combs, honey-combs, or empty ones separately. It is not necessary to look for the queen. She is brushed into the hive with the other bees.

At last we remove the empty body, lay a queen-excluding honey-board on top of the new hive; and a super with sections (containing preferably full sheets of foundation and some bait-combs) is set on top of this, and the hive is closed.

The next day the frame of brood is removed, and more super room given if needed.

Propolis.—As there is a possibility that propolis may yet become an article of commerce, the following from a report of a conversation reported in the British Bee Journal will be of interest:

"Propolis" was a remarkable product, medically used in liquid, not salve form as many supposed. It was considered to be a wonderful antiseptic, and had been employed successfully for wounds in South Africa. It was supposed to take the place of iodine, and some experiments showed that with about 3 percent emulsion of the liquid certain bacteria were killed off in two minutes, and other bacteria in three minutes. This "propolis" was stated to be very useful for foot and

mouth diseases. The mixture was also said to be very rich in oxygen and carbonic acid gas in a liquid form, and contained another alkaloid at present unknown. With regard to "propolis," Mr. Harris would like to know, seeing that its antiseptic properties had been proved, what the general opinion was as to its efficacy in the treatment of foul brood.

Mr. Reid, who had examined the bottle and smelt its contents, said that the liquid smelt of benzoline, and might be a germicide. Mr. Brice suggested that the germicidal properties probably existed, if at all, in the "unknown alkaloid."

Mr. Reid said that propolis, when taken out of the hive, always contained wax; generally it was nearly half wax, and wax invariably contained propolis, except when just secreted. It was possible to separate five or six different substances by the use of various solvents, but what those substances would do, or whether they were specific antiseptics, it was difficult to say. The bees themselves used propolis as their chief antiseptic. They would cover over objects of aversion (such as a dead mouse), which got by any means into their hive with wax and propolis—always the latter—and they would cover over the antiseptic provided for them with their own, which was better. A large percentage of propolis would be found in the dark cappings of cells containing foul brood.

Mr. Hamlyn-Harris, in concluding the discussion on "propolis," stated that the researches made by the inventor of the compound in question was sent up to the Medical Officer of Health for Prussia, and the latter gave his certificate that all the chemical and bacteriological properties thereof were as claimed.

A Suggestion for the National.—At the last meeting of the Chicago Bee-Keepers' Association the following was unanimously adopted:

WHEREAS, The National Bee-Keepers' Association has provided that local associations may join it in a body by payment of 50 cents for each local member; and,

WHEREAS, Abundant advertising is necessary for the success of any enterprise; therefore, be it

Resolved, That we, the Chicago Bee-Keepers' Association, do hereby request and urge the National Bee-Keepers' Association to provide all local associations in America with printed matter setting forth the objects and aims of the National Association, so that the secretaries of such local associations may be able to put such printed matter into the hands of all bee-keepers in their territory and jurisdiction.

From the fact that there has been some call for information concerning the objects and work of the National Association, it would seem that there should be something printed for free distribution—that it furnish the desired information—so that it would not be so difficult for the officers of the local associations to get members.

It was at our suggestion that the provision was made in the constitution of the National Association to admit the members of the local associations at 50 cents each. We still

think that it was a good move, and believe that the provision would be taken advantage of if local bee-keepers understood about it, and especially if they were informed concerning the good work already done by the National, and also as to what it purposes to do, in the interest of every bee-keeper in America.

We trust that the board of directors of the National Association will act on the suggestion made by the Chicago Bee-Keepers' Association.

We also think that it would be a good thing if all the bee-papers would carry a standing notice, that every one desiring to learn about the work of the National Association could do so by sending to the general manager for literature that would explain the objects of the Association. It can not be expected that bee-keepers will unite with an organization until they know something about it. They must be led to see that it will pay them to do so before they will hand out their dollar-a-year dues. We believe that any legitimate organization will not suffer for the lack of funds if those who should be interested are shown that it is to their interest to support it, and that its objects are really wise, and for the advancement and defense of right principles and purposes.

Let the board of directors of the National Association prepare at once suitable literature as suggested, and begin its circulation as soon as possible thereafter, so that by the time of the next annual meeting its membership can be counted by the thousands instead of by the hundreds. We are ready to do our part in pushing the work of securing membership, thru the columns of the American Bee Journal, and have no doubt that the other bee-papers will do all they can along the same line. With united effort we believe there is no reason why the National Bee-Keepers' As-

sociation should not have a larger membership than any of the other agricultural organizations now in existence in this country. We believe the machinery of our Association is all right, and all that is needed is to work it. It needs to have its joints limbered up with the oil of enthusiasm, and the motive power of earnest effort applied to start it and keep it going.

Weekly Budget

MR. O. O. POPPLETON, of Dade Co., Fla., wrote us as follows, Jan. 29th:

"Bees are breeding nicely with an abundance in the hives. They would be gathering quite a little surplus honey now if the weather was only a little warmer.

"I had the misfortune, a couple of weeks ago, to drop the ax on my left forefinger, just above the knuckle joint, cutting it quite badly, and breaking the bone. The surgeon thinks the finger can be saved without its being stiff. It is doing fairly well now, but it will take a week for the bones to knit so the hand can be used. I don't find any special fun in being one-handed."

We regret to learn of Mr. Poppleton's accident, and trust that in time his finger may be all right again.

EDITOR WILL WARD MITCHELL, of the Progressive Bee-Keeper, after quoting the account we publish in the American Bee Journal of Jan. 10th, concerning our "fire-water" disaster, gives this appreciated paragraph:

We regret our brother publisher's misfortune, and hope his many patrons will pay up any back dues at once, as Bro. York has been

giving us his best efforts, and the "Old Reliable" is far ahead of what it ever was before. We know of nothing that would be more cheering to Bro. York than for delinquents to "pay up" and send in their renewals.

THE WISCONSIN CONVENTION was held at Madison last week as previously announced. It was a good meeting, and quite well attended, considering the poor honey season the past year.

The officers were all re-elected for the ensuing year, as follows: President, N. E. France; vice-president, Jacob Huffman; secretary, Miss Ada L. Pickard; and treasurer, Harry Lathrop.

Next week we will have more to say about the meeting and some of those who attended.

A DOZEN of the wealthiest capitalists in the country—men who wield absolute control over immense business enterprises—will tell the readers of the Saturday Evening Post (Feb. 16th) why they remain in the race which they have already won.

Each of them writes frankly whether he makes money for its own sake, for the sheer joy of working, or to gain the power with which vast capital invests itself. CURTIS PUBLISHING Co., Philadelphia, Pa.

MR. H. C. BINGER, one of our subscribers in Shiawassee Co., Mich., wrote us Jan. 28th as follows:

"Father past away Jan. 15th, at the age of 67. He was born in Mecklenburg, Germany; when 28 years of age he came to this country and settled at Rochester, N. Y., and there he was married to Miss Friederick Fischer, who, with five children, survive him. In faith he was a Lutheran, and was a kind and loving husband and father."

Contributed Articles.

No. 12.—Interesting Notes on European Travel.

BY C. P. DADANT.

BEFORE I leave Paris and its surroundings, I must tell you of two very pleasant trips I took in company with my daughter and our good friend Mr. Gariel, of whom I have often spoken. The first was a visit to a manufactory of bee-hives and implements located in a small town—Chartres—some 60 or 80 miles out of the capital. The flying express took us there in the morning and brought us back in the evening.

Of the factory itself I shall say nothing. It was a busy place, but those of our friends who are acquainted with American factories would find nothing of interest in anything I might depict, for their methods are not as practical as ours, and the work turned out is not to be compared, as I said in a former article, to anything that is made here. But I could perhaps give instances of the great economy practiced in the saving of material. This factory manufactures hives only as a secondary business, their main occupation being the making of railroad supplies of different kinds. Well, I saw large piles of old railroad ties (which would be sold here for fire-wood) cut up into small pieces, and a good portion of the material set aside for the manufacture of a number of small articles which could very readily be cut out of this refuse. It takes more time, it is true, to pick out the sound wood, but the Europeans can not use our axiom, "Time is money," to as much of a purpose as we can, for altho with them time is also money, there

are many things that are more valuable than man's time over there.

The cheapness of labor is very certainly responsible for some very queer notions. For instance, a certain manufacturer seriously asserted to me that it was cheaper for them to have the lumber planed by hand than by steam. "It costs so little," he said, "and the work of a smoothing-plane is always neater than that of a steam planer. And in the use of second-hand lumber we need not be so afraid of the nails which would very soon spoil the steam knives." I tried to discuss the matter but it was of no use, and it is also evident that many working men do all they can to discourage the employment of time-saving devices which they consider as their enemies.

We were splendidly treated by the manager, who is evidently an able man and who asked me a number of questions about America and its factories. He was well acquainted with a gentleman who was in the employ of the railroad company as civil engineer, and who had been sent to America to buy a number of locomotives, and whom I happened to meet on our trip across the ocean, so we had quite a talk about the great steps that America is making in her trade with the world at large, and the numerous exports which are just beginning to bring the New World into competition with the Old.

We partook of a very nice dinner in his home, close by the factory, and employed the afternoon hours previous to the departure of the train, in walking about the old city, its walls, and the little stream which runs at their foot and in which the housekeepers were busy washing their linen. It was very picturesque. On another day we went with Mr. Gariel again, to visit an old and experienced bee-keeper—Mr. Delepine—cure of Meulan, within an hour's ride of Paris. Mr. Delepine is not only a practical apiarist, but is also a writer on bee-culture. He writes regularly for the weekly journal entitled, "La Gazette du Village," which might very properly be called the "Farm Journal" of

France, for it is a neat, newsy, and practical farmer's paper, full of interesting information. The trip to Meulan reminded me very much of "L'Abbe Constantin," by Halévy. I have no doubt many of the readers of the American Bee Journal have read that little book, for it has been translated into English and has become a classic.

Well, the kindly, good-humored cure, his old servant, his little garden, the little church, the little village, and even the big castle at a short distance on the opposite side of the road—all these things look familiar altho seen for the first time. We found ourselves there with Mr. Giraud, whom I have mentioned as so successfully putting in practice the Doolittle method of queen-rearing, and with an old gentleman—a count who kept bees for pleasure—and we had quite a talk on America and our American celebrities in bees. If I am not mistaken, two of the persons present could read English and had read *Gleanings* and a few copies of the American Bee Journal and "A B C of Bee Culture." Why it is that so few of the French can speak or read English is more than I can comprehend, but they seem to think it much more astonishing that not all foreigners can speak French. They seem to think that the French language ought to be an indispensable part of any good education.



Entrance Gate to the City of Chartres, France.

I think this makes the French more exclusive than other nations. Then their literature seems to encourage them in their ideas of exclusiveness, for it is certainly very wealthy in able works and books which have become classics, and more translations seem to be made from the French than from any other tongue.

We left Meulan after a very pleasant chat and a visit to the fine park of the castle across the way.

What a difference between European and American landscapes! I vainly tried to imagine myself in America, at different times. There was always something in sight to dispel the illusion. The village houses huddled together as in a nest; the white walls and red tile roofs; the magnificent country roads with their avenues of trees on each side; the little patches of land looking for all the world like so many handkerchiefs lying side by side in the sun; the smooth little streams of water, running quietly even to the edge of their grassy shores, and shaded with willows and poplars along their windings; the herded cattle, the two-wheel carts and their heavy loads, even the country buggies, showed me that this was another world. O, those buggies! What a look of contempt our farmer boys would give them! They are not buggies, but carts very gaudily painted, but so heavy! Wheels five feet high, shafts made of 4x4 timbers, springs to suit, harness ditto, and a big Percheron for a trotter. I nowhere saw one of our American spider-web buggies. I have no doubt that there are some in Paris, yet they must be scarce. There are plenty of fine carriages, and expensive equipages, but you can not, on the public roads, meet a light top-buggy at every turn. Their lightest buggies are made to last, and are heavy in every particular. This seems an absurdity, for such vehicles as we use here, on our abominable American roads, would be a delight over there. The harness also is heavy. It seems as if they were afraid the horse would break it, and there is enough leather in the lightest harness to make three such harnesses as our buggy-horses wear.

A Few Words of Comfort for "Old Grimes."

BY "THE MILLER O' THE DEE."

"Old Grimes is dead: that good old man,
We ne'er shall see him more."

SO the old ballad has it, but it now seems that he was not dead, but sleeping—aye, sleeping long years, like Rip Van Winkle, and he has only just awakened. (See page 20.) Poor, sleepy Old Grimes, who would have thought that one of your kindly, genial, helpful nature would have put even the semblance of discouragement in the way of any one, even of one so lost to all rectitude as to try to invent new devices in bee-dom?

You kindly old men did, indeed, beat paths for the rest to follow, even as our forefathers blazed the rude trail to the frontier; but who now would care to stumble over the logs and stones of such paths, when the same end may quickly be reached by automobile? Those old paths are full of pretty places, romantic spots and picturesque corners where wild flowers lend their sweetness and the drowsy hum of the bumble-bee invites one to tarry and repose. We all love those places to rest in, and the companionship of the placid plodder of these byways, but they are not for present-day commerce, nor can we travel over them in up-to-date vehicles.

The feeling which caused you, dear Old Grimes, to complain, is but a sound and safe conservatism allowed to run riot. But then, we must needs be charitable to you, for your article clearly shows that you have in mind only the devices shown in ancient times, and which indeed needed bees from fairy-land to construct combs for use in them.

What a nightmare your dreams have been, for now, just half awake, you mutter of slicing-machines, of hills and hollows, of long adjusting, of high prices, of revolutions, of systems, of new outfits, and other fits and misfits. Come, come, Father Grimes, take a cold plunge, shake thyself and awake, for thou art still more than half asleep. Thy ideas and reasoning bespeak of cobwebs in thy brain, and are not worthy the 20th century.

'Tis far from the thoughts of these troublesome inventive fellows to put obstacles in the paths of you old fellows—no, no! they would much rather help you into the broad, smooth highway, and when you longingly turn from its rush and bustle into the sweet, tho' sleepy, quiet of the old paths, they would furnish you with a rugged cane to help you tottering steps over its stones and hummocks.

I know a little about some of these new-fangled machines, and to save you from further worry let me whisper to you that an uncapper costing \$20, and that has to be "adjusted," is as far from the realized dreams of those ingenious fellows as you can imagine. No, they do not cost nearly so much, and their capacious maw will take all the combs as they come, and deliver them to you neatly *uncapped*, and at the rate of 20 a minute, if your trembling hands can feed them in so fast.

Dear Old Grimes, we all love you for your kindly charities, and for that quaint figure in its "old black coat, all buttoned down before," even tho' the color is now rather gray from the dust of many years.

So let us help you as you tread
That path of olden times;
All undisturbed, rest in thy rut
For evermore, Old Grimes.



Getting Bees to Swarm—Requeening, Etc.

BY EDWIN BEVINS.

LAST spring I discovered a means of getting bees to swarm at almost any time when swarms are desirable.

One of my colonies was wintered in two sections of a sectional 8-frame hive, sections $7\frac{3}{8}$ inches deep. Early in May the colony got so strong that in order to prevent swarming I placed another section under, filled with drawn combs. When supering time came, I raised the upper story and put a queen-excluder under them, then shook the bees from every frame down in front of the entrance. I felt sure the queen was below, and expected the brood in the upper story to mature and make room for honey to be stored there by the time there would be much to store.

No further attention was paid to these bees for several days until one day a neighbor expressed a desire to look over the apiary. In showing him around I happened to raise the cover of the hive and lift some of the combs. To my surprise I found brood in all stages of development, and every

comb full. On one of the combs I found the queen and put her below. The next day but one, some one coming into dinner said the bees were swarming. I said, "What are the bees swarming for? I don't believe there is a queen-cell in the yard." But noticing that the air was full of flying bees I went out to see what hive they were coming from. It was from the hive in which I had put the queen below the day but one before. The cause of the swarming was not hard to understand. The bees clustered in two places, and, suspecting that each cluster had a queen, I hived them in two hives. One cluster was large, and I hived it on 9 Langstroth frames; the other I put into an 8-frame dovetailed hive. Each cluster had a queen.

After hiving them I went to see what was going on in their old home. I found a queen in possession there, and quite a number of cells, from which the queens had issued. I reduced the old hive to two sections, and left it that way for the balance of the season. When packed for winter it was so heavy with honey that I did not care to lift it. The two swarms stored their winter's supply, notwithstanding the season had been an unusually poor one for honey. These were all the swarms I had the past season.

Another colony wintered in two 10-frame dovetailed hive-bodies on 17 frames, had a queen nearly or quite as prolific as the one just mentioned. The last of April the two stories were so full of bees that I put another story under, containing 9 frames. About the first of June the three stories seemed to be full of bees. An examination showed that there was no brood in the lower story, but the one above, which also contained 9 frames, was practically full of brood, and the upper one seemed to be about half filled. As the upper story contained much honey I removed the middle story to another stand, knowing that most of the bees would go back to the old location. I did not see this colony again for several days, but when I did I found a queen on the first comb I raised. Another mature queen was found on another comb. Then I formed a nucleus and gave it to one of the queens. The queen left in the hive proved to be an uncommonly good one, even if it was reared in a manner which queen-breeders generally condemn.

SELECTING A HOME BEFORE SWARMING.

Do bees intending to swarm hunt up a place to go before the swarming takes place? I guess they do sometimes. One season I noticed bees in great numbers entering a hive which stood on another hive at the upper side of the bee-yard. The hive had some empty combs in it. I looked about to see where the bees were coming from, and found them pouring out of a hive at the lower end of the yard and taking a bee-line for the hive at the upper end of the yard—a distance of about 4 or 5 rods.

REQUEENING COLONIES IN THE FALL—MAILING QUEENS.

I unqueened and requeened one-fourth of the apiary last fall. Most of the work was done in October, but it was not finished until some time in November. One reason why I like to do this work so late in the season is because in almost every instance I found the bees two deep, and as they have nothing from which to start queen-cells I don't have to be very particular about the time of introducing. In two instances there was a little brood, but as the queens were delayed I had a chance to destroy queen-cells.

The queens were from different parts of the country, and from breeders of good repute, and I have reason to believe they were all safely introduced.

I shall continue to order queens to be sent thru the mails, as I do not believe that many are injured in transit. Four queens ordered last fall were received dead. One of these was delayed in the mails at a time when the weather was hot. Two others had received such a shock that the cages were split from end to end, and had been tied up with string. The other cage had the queen and the bees all dead in it, doubtless caused by the same shock which split the cages of the other queens, as they came in the same mail.

When I received queens with pasteboard covering the entrance to the candy it was promptly torn off, and I had no queens killed in consequence of being released too soon.

I do not think that Mr. Fred Tyler need to worry about his bees getting too warm packed as he describes on page 766 (1900).

Decatur Co., Iowa, Jan. 7.

The Premiums offered this week are well worth working for. Look at them.

Convention Proceedings.

Report of the Proceedings of the 31st Annual Convention of the National Bee-Keepers' Association, held at Chicago, Ill., Aug. 28, 29 and 30, 1900.

BY DR. A. B. MASON, SEC.

(Continued from page 86.)

MELTING CANDIED EXTRACTED HONEY.

QUES.—What is the lowest temperature at which candied honey will melt?

Mr. Aikin—I think about 100 degrees, or a little better, but you must continue the heat for a long time; about 110 to 120 degrees will melt it in a few hours. The highest degree that I wish to subject my honey to is about 160 or 170 degrees; beyond that it begins to spoil the flavor. An additional question on the same sheet is: "What is the highest temperature it will bear without injury?" About 160 or 170 degrees is high enough. I would rather melt at 140 or 150, keeping it a longer time at that degree than to use the higher temperature.

APIS DORSATA AND THE NATIONAL ASSOCIATION.

QUES.—What is the attitude of this Association in regard to importing *Apis dorsata*, the big bee of India?

Mr. Aikin—If I am to answer that, I believe it is opposed. I don't know.

Dr. Mason—Opposed until we know more about it.

QUES.—Have any steps to procure or test these bees been taken?

Ans.—Yes, there have.

Mr. Benton—The attitude of this society did not seem to be that at the Buffalo convention, and I was wondering whether it had changed, considering your answer.

Mr. Aikin—I judged from the sentiment as expressed thru the bee-papers of late—I said I thought, I do not know. I suppose the only way we could come at it would be by taking the temperature of the people here now. Are you thru with this subject?

REQUEENING AN APIARY.

QUES.—What time of the year is best to requeen an apiary, all things considered?

Mr. Aikin—Dr. Mason, answer that.

Dr. Mason—Why, I really don't know. I prefer to do it during the honey-flow, myself, and by natural methods. I don't use the artificial methods.

A Member—Early or late?

Dr. Mason—Late.

A Member—How late?

Dr. Mason—For convenience, that is all. I don't believe it makes any difference as regards their good qualities which stage, early or late.

A Member—You would say just after the honey-flow?

Dr. Mason—Just as it is closing up, before it closes. They must have the vim and energy they have when the honey-flow is on.

A Member—How often would you requeen?

Dr. Mason—Once in two years.

MATING IN CONFINEMENT—SPREADING BROOD.

QUES.—Can the queen mate with the drone if the queen and drones are confined in a tent or other inclosure, say 200x100 feet?

Dr. Mason—No.

QUES.—Is it any benefit to spread brood in early spring?

Mr. Aikin—Prof. Gillette, please answer that.

Prof. Gillette—Let some one with more experience answer that.

Mr. Poppleton—Yes.

A Member—Sometimes it is, and sometimes it is not, depending principally upon the man or woman who manages it. If you know how, it is all right; if you don't know how, go slow.

KEEPING EXTRACTED HONEY.

QUES.—How long will extracted honey keep?

Dr. Mason—I don't know; it has never been tried.

Mr. Aikin—I have some that is getting to be pretty nearly half as old as I am.

Mr. Coggs—I have some 30 years old.

Mr. Aikin—Is it good?

Mr. Coggs—I haven't opened the package.

Dr. Mason—I have some that is 15 years old that stands open—good yet.

TO PREVENT GRANULATION AFTER FEEDING.

QUES.—For feeding what would you put with sugar syrup to prevent granulation, and what proportions?

Mr. Aikin—Some use honey; I never had any experience. I can't answer it.

Mr. Hutchinson—Honey is all right for that; about one-quarter honey is all right.

Mr. Benton—One-fifth will do.

Mrs. Acklin—Percolate the syrup and you don't have to put any honey in.

WHAT TO DO WITH FERMENTING HONEY.

QUES.—What can you do with frames of honey that is fermenting?

A Member—Extract it and sell it.

Mr. Aikin—Feed it to the bees, or make vinegar of it.

A Member—Will it do to feed to the bees?

Mr. Aikin—I wouldn't feed it to the bees any time except when they could fly freely, and I have some doubt about it then; I said that because somebody else was recommending feeding.

SPENDING THE FUNDS OF THE ASSOCIATION.

QUES.—How large a percent of the funds of this Association should be used in the prosecution of adulterators of honey?

Mr. Abbott—It depends upon circumstances. We would have to decide that when the case came up.

QUES.—Would this Association deem it better to have a good, fat sum in the treasury, or should the money be very nearly exhausted each year in the various lines of work for which the Association was organized?

Mr. York—I think it ought to spend its money in the interest of its members. If more is needed at any time for legitimate purposes, call for more from the members.

Dr. Mason—Money is no good when it lies idle.

AN ASSOCIATION BRAND FOR HONEY.

QUES.—Should this Association prepare an association brand as a guarantee of purity of honey, which it can supply to certain applicants upon the unanimous approval of the board of directors?

Mr. Aikin—For my part I would answer that in the negative, until this Association becomes more properly a business concern.

BEES POISONED FROM UNTIMELY SPRAYING.

QUES.—Is it a fact that bees are poisoned and brood killed when fruit-trees are sprayed while the trees are in bloom, and the bees are visiting them?

Mr. Aikin—Colorado people say yes.

Mr. Benton—Other people say yes.

Mr. Aikin—A person in my county was convicted and fined for spraying his trees while in bloom, and thereby killing his neighbor's bees.

Mr. Prisk—I think in referring to that the other day, when I spoke about the sulphuric acid killing the bees where the smelters were, somebody made a reply that they thought that smelters did not kill the bees. In our town we have large smelting works, and in our yard, and for blocks around, everything is killed. I have known arsenic to collect to a large amount in a few hours and to kill the shrubbery around there, and we thought that probably it fell to such an amount on the bloom that that killed the bees. We noticed the bees always came home as if they were tired out, and did not leave their hives.

ARRANGEMENT OF BEES WHEN SUPERING.

QUES.—When putting on the supers for comb honey should the natural arrangement of the brood be interfered with?

Mr. Hutchinson—I should say no.

Mr. Hatch—I wrote that question myself, because I tried an experiment this summer that convinced me it is profitable to interfere with it, and judging from this one experiment I should say decidedly it should be. My experiment was to move all the eggs and unsealed larvæ to the outside of the hive, to fill the hive full of brood, and put all the bees and unsealed larvæ clear on the outside. The re-

sult was I got a big yield of comb honey, and the outsides were filled up first. Whether it would work always that way or not I don't know. Of course, I only tried it one season; but I think it is a subject worthy of further experimentation.

Mr. Abbott—Mr. Hatch is appointed to experiment next season.

Mr. Hatch—I undoubtedly will.

THE HONEY CROP AND HANDLING.

QUES.—What percentage of the national honey crop is represented by the membership of this Association?

Dr. Mason—I don't know, and I don't believe anybody else does.

QUES.—Would it be practicable for the Association to handle the crop of 1901 for its members?

Mr. Abbott—No, nor at any other time.

Dr. Mason—I don't believe that; that is, the last part of Mr. Abbott's statement. I'm a firm believer in co-operation.

QUES.—If impossible, by what obstacles is the possibility precluded?

Dr. Mason—That matter is like all other matters—it has to develop itself slowly. I believe that this Association will some day get in position to handle the honey of its members; can't be done yet; it is going to take time.

A Member—Is it not possible for this Association to go into a joint-stock corporation and handle all their honey, buying all the honey in the country and handle it for the benefit of the members? I think it is possible. I don't see anything to prevent it, if all the honey could come in here and be graded by disinterested parties.

Dr. Mason—Are you asking me that question?

A Member—Yes, sir.

Dr. Mason—I think I can answer that question. I don't believe there are a dozen members of this Association that would be willing to ship their honey and wait for their pay; it takes money to run any business. Will you put the money in?

A Member—The honey will bring the money.

Dr. Mason—It has to be handled, and all bills paid; it takes money to run any business; this has to be developed.

A Member—Why can't the bee-keepers furnish that money pro rata?

Dr. Mason—Well, I don't know why they can't; but will they?

Mr. Aikin—I would like to say for the information of all interested, that some of us in Colorado have been thrashing that ground over and over again in the last four or five years, until we have got down to a working basis; I am going to tell you a little of it to-night.

QUES.—Should this Association undertake to find a market for its members?

Dr. Mason—It is answered in what has already been said—not at present.

WIDE AND DEEP HIVE-ENTRANCES.

QUES.—Is it an advantage during hot weather to use wide and deep entrances in the production of comb or extracted honey? If so, is there any danger of going to an extreme?

Mr. Wood—I use both large and small entrances, and I see no difference. I use chaff cushions on top of my hives the year round, and I find them better than none at all.

COMB FOUNDATION—COMB HONEY.

QUES.—Is it more profitable to use thin foundation than extra-thin in supers? and, if so, why?

Mr. Aikin—I believe extra-thin would be my answer, and the why of it as put before us this afternoon by Prof. Gillette.

QUES.—Is comb honey in drone-cells as pretty and as white as that in worker-comb?

Mr. Aikin—It depends upon who is looking at it; ordinarily it doesn't appear as white looking.

REMOVING SUPERS—HONEY OZZING OUT.

QUES.—When should the supers be taken off?

Mr. Aikin—When they are full, and the unfilled ones as soon as the honey-flow stops.

Mr. Holdren—What is the cause of honey oozing out of the cells after it is filled all up in that way?

Mr. Aikin—I don't know why it is—fermentation, perhaps.

Mr. Holdren—What causes the fermentation?

Mr. Aikin—I wouldn't know how to answer that, unless it is too much water—unripe honey.

Mr. Holdren—I had my honey in a very light place upstairs, and some of it oozed out in that way.

Mr. Abbott—Bees frequently gather honey that will ferment, especially in localities where there is basswood. Sometimes bees gather honey during damp weather that they can't fully ripen, and I have had large quantities of it ferment in that way, and just as soon as it becomes ripened it will granulate. In some seasons I was troubled badly with it in Missouri, and other seasons I would not have any of it. I think it is owing to the dampness of the honey when gathered, the bees not being able to ripen it fully.

(Continued next week.)

Report of the Utah Bee-Keepers' Convention.

BY A. F. STEVENSON.

The Utah State Bee Keepers' Association held its annual convention in Salt Lake City, Oct. 6, 1900.

The meeting was called to order by Pres. Lovesy, and after the reports from committees were read he gave some general reports from different parts of the State. The meeting was then thrown open for discussion of topics of general interest to the fraternity.

GENERAL REPORTS FROM MEMBERS.

Andrew Nelson, of Emery Co., had harvested a very good crop of honey during the past season, but he said that something was wrong with some of the bees, possibly foul brood, and, if so, he would like to know of some way to get rid of it. The condition of the brood was described, a discussion among some of the experienced bee-keepers followed, and they decided that it must be pickled brood. Some time was taken in discussing cures for foul brood. The bees should be looked at early in the spring, and if any brood is found with the backward presentation it is sure to turn out to be foul or pickled brood, and when such conditions are in evidence the bees should be transferred onto foundation in clean hives; but if they are left until rotten it is best to destroy both bees and brood.

James Jackson, bee-inspector of San Pete Co., said there was some foul brood in Mt. Pleasant and other parts of the county, and it seemed to be almost impossible to get rid of it entirely.

Mr. Lovesy found in 10 years of experience that it was always best to transfer the bees just as soon as the backward presentation was noticed, even if at a time when the bees would have to be fed, as even at this early stage the disease will have been in the hive two weeks or more, and the young larvae in their agony have turned over, leaving the head in the bottom of the cell, which makes it impossible for them to hatch out.

Joshua Terry, of Salt Lake Co., reported a poor crop, and the situation very discouraging. His bees had dwindled from 90 colonies to 15, the principal cause being smelter-smoke. Mr. Cornwall of the same county was also a heavy loser from the same cause. He moved some of his colonies several miles from the smelter-smoke, and they continued to die for a week, after which they began to do better, while all of those left at home soon died. A resolution was adopted authorizing the Association to use all possible legal means to get rid of the nuisance.

L. Yeale, of Tooele Co., reported a fairly good crop, tho not as heavy as in former years. Several reported a light crop in the southern part of Davis County, while in some of the northern portions the flow was good. They reported some cases of foul brood, and no inspector to attend to it, tho they expected to have one soon.

Mr. Nelson gave his experience in packing for winter with burlap, straw, chaff, etc. Mr. Stevenson was also successful in packing with straw and chaff mixt, raising the covers about $\frac{3}{8}$ of an inch for ventilation.

Geo. Hone reported that Utah County had produced only about half the amount of honey secured in other years. In speaking of winter packing he thought that two or three thicknesses of burlap over the brood-frames, with a super on top, was a good way.

Frederick Schach, of Salt Lake Co., reported a poor crop; he thought packing for winter was all right, but the bees must have sufficient ventilation or they would sweat, get weak and damp, and then die.

A general discussion followed in regard to exhibiting at Fairs, and also in regard to the purchasing of bee-supplies and disposing of the products of the bee. A vote of thanks was tendered the officers of the Association

for their efforts in supplying members with information as to honey prices, as this had a tendency to keep up prices, and thus benefit the bee-keepers and the industry.

Several from Weber County had a full average crop, some of the bee-keepers there averaging more than twice the amount of both comb and extracted that some bee-keepers in Salt Lake and other counties secured. Mr. Reese secured over a car-load of No. 1 extracted honey. As prices have been above the average this season he is one of the lucky ones.

THE PRESIDENT'S ANNUAL ADDRESS.

The many reports we have received taken as a whole are not very flattering or encouraging. While we have received some flattering reports of a good honey-flow and a good crop for bee-keepers in the southeast and south central parts of the State, further south they have not been as good; and while in the northern parts of the State the reports have been fairly good in some localities, in the north central parts, owing to drouth and grasshoppers, the reports have mostly been from $\frac{1}{4}$ to $\frac{3}{5}$ of a crop, the average in some instances being as low as 30 to 35 pounds. One of the remarkable features of the season has been that while there was very little honey in some localities, in favorable localities a few miles distant there would be a good honey-flow. These favored spots were generally in or near the base of the mountains, where there was plenty of irrigation, and few or no grasshoppers. To many of our bee-keepers the last year of the century will prove an exasperating failure. Altho we had a beautiful spring, the dry, hot June—the hottest ever known in the State—dried up the bloom and irrigation; and as misfortunes seldom come single-handed, then came the grasshoppers in such numbers in some localities that they ate everything green. When things began to look discouraging, both for the past season and the next, our friends—the gulls—came by the tens of thousands and devoured the grasshoppers by the wholesale. So most of the bees have plenty of honey for winter, with some surplus, and the chances are more favorable for another season, on account of the work of the gulls.

The Association has been of material benefit to many of our bee-keepers, in keeping them posted as to the value of bee-products; we have been duly assisted in this matter by Mr. F. L. Thompson, of Colorado, and the bee-keepers that have been governed by the advice given, have saved money by it. This union of interest is certainly a step in the right direction, and we hope it will be extended to the purchasing of supplies next season. Too much credit can not be given Mr. Thompson and others in their unselfish interest in this matter.

The smelter-smoke is still a matter of much concern to many of our bee-keepers. This matter has been thoroughly tested in Salt Lake County the past season, by placing colonies of bees in different directions and distances from the smelters, and we find that all bees placed within five miles of the smelters in the direction the wind usually blows, die off in from three to five months, while many 8 or 9 miles away die during the year. But bees placed within two or three miles of the smelters in the direction that the wind does not blow, do not seem to be affected at all. It has also been proven that much stock and vegetable matter have been destroyed by this smelter-smoke. Arsenic, or something of that nature, settles from the smoke on the trees and plants, causing a destruction of life, as stated. In the light of these facts some method should be adopted to have this poisonous smoke consumed, or otherwise prevented from being sown broadcast as it now is. E. S. LOVESY.

Mr. Ulrich Bryner, of Carbon Co., said that his bees were in good condition, and had done better this season than ever before. He secured 200 60-pound cans of extracted honey from 85 colonies.

Thos. Neilson, of Sevier Co., reported that the season's crop was considerably below the average.

Mr. Ballston, of Juab Co., reported a fairly good honey-flow in that county, but not as heavy as it had been in some years.

J. A. Smith, of Wasatch Co., reported a fairly good crop for his county, altho they had harvested larger crops in other years. Wasatch is one of the counties in which there is a good flow of first-class honey in ordinary seasons. Mr. Smith heartily endorseth the efforts of the Association in trying to keep up the prices of bee-products, thereby aiding the bee-keepers in building up the industry.

Uintah County reported the best honey-flow of the season, and is the banner county of the State. A score or

more of the principal bee-keepers of the county harvested 318,400 pounds, and altogether the county has produced about 500,000 pounds the past season.

After a discussion on how to increase honey-producing plants the meeting adjourned, subject to the call of the president.

A. F. STEVENSON, Reporter.

Salt Lake Co., Utah, Oct. 27, 1900.



"The President's Message" to the Ontario Co., (N. Y.) Convention.

BY W. F. MARKS.

ANOTHER year has past since last we met, and left us, as honey-producers, richer only in experience, the past season being the poorest season for honey ever known in our county if not thruout a large portion of the continent. But altho the past season has been the poorest of several poor seasons with us in the production of honey; altho our bees have failed to gather us any surplus, we can feel that our labor has not been in vain, for our pets have never yet failed to fulfil faithfully the prime purpose for which they were created, whereby all are benefitted.

Miss Morley says, "The Vedic poets sang of honey and the dawn at the same moment, and all the succeeding generations of India have chanted honey and its maker into their mythologies, their religions and their loves."

"The philosophers of Greece esteemed the bee. And without honey and the bee the poets of Hellas would have lacked expressions of sweetness that all succeeding ages have seized upon as consummate."

"The Latin writers studied the bee not only for its usefulness as a honey-maker, but because of its unique character for industry, for its skill as a builder, and for its wonderful sagacity in its social organization."

"Modern writers are principally concerned with the structure and habits of the bee as revealed by modern science, and particularly with the part played by it as a fertilizer of the fruits and flowers."

"To fertilize the flowers has always been the office of the bee, as we can see now that the processes of nature are understood."

"At the present time sugar has superseded honey as an article of every-day use. Honey has lost most of its importance in the family life, but not so the bee, for we know that it does inestimable service in perfecting the fruits of the earth, and that without it our orchards would be lean and our gardens barren."

Notwithstanding the acknowledged importance and necessity of the bee as a factor in agriculture and the arts, we are to this day called upon to fight for its very existence.

At the last session of the legislature the opposition, I have reason to believe, started in to repeal our excellent spraying law; but, finding that its friends were awake and ready for the fray, they contented themselves by asking for an amendment to the law to allow experiments by the directors of the experimental stations at Ithaca and Geneva. Originally the amendment had the words, "whenever and wherever desired in this State;" we had these words stricken out. As finally amended, believing that the proposed experiments would sustain the bee and strengthen the law, it was allowed to pass without further opposition. These experiments have not yet been published. Perhaps it will not be proper for me to anticipate the result of these experiments, but I have reason to believe, from what I can learn, that we have nothing to fear from them, and that they will only emphasize the fact that it is not only unnecessary but absolutely injurious to spray during bloom. I learn that in one of the experiments of spraying in bloom, the yield of fruit was just one-half of what it was where the spraying was done just before the blossoms opened. That certainly is not "making two blades of grass grow where one grew before," but the very reverse. The result in all the experiments may not have been as emphatic as this one; it could hardly be expected.

Plato in his laws written 370, B. C., makes it a crime to poison bees. His law translated reads as follows: "He who employs poison to do an injury, not fatal, to a man himself, or to his servants, or any injury, whether fatal or not, to his cattle or his bees, if he be a physician, and be convicted of poisoning, shall be punished with death; or if he be a private person the court shall determine what he is to pay or suffer." Thus it will be seen that we have a precedent that was established nearly 2300 years ago.

"The mills of the gods grind slowly." It is thus with the *Apis dorsata* enterprise that you have so persistently advocated. I can assure you, however, that this undertaking is certainly making progress; one thing is certain, Providence is on our side, and, altho he has not yet succeeded in importing these bees, he has given us their native land, and *dorsata* is getting accustomed to the star-spangled banner. I believe they are willing subjects, as there are no reports of their having joined the insurgents! I trust the opposition will not start such a report, and that they have stung, perhaps killed, one-half, more or less, of our little army, and driven the balance into the China Sea! Yet such a story would be just as reasonable as many that have been circulated in relation to this bee.

Perhaps the subject of marketing honey is quite out of place this season, owing to the fact that we have none to market; but if we should be fortunate enough to secure a crop again we should endeavor to maintain prices now that they have advanced.

The National Association has recently issued a pamphlet, larger and more complete but similar to the one we published over a year and one-half ago. Such pamphlets are very useful. I wish that all this matter—showing the relation of bees to horticulture—that has been published by the Department of Agriculture, the various experimental stations, and other recognized authorities, with the experiments now being made at Ithaca and Geneva, in relation to spraying in bloom, with accompanying illustrations, could be published in one bulletin. This matter of the bee and its importance to agriculture can not be proclaimed too much—the people should be made to realize their obligations to the honey-bee.

I will briefly call your attention to Article 3, Section 2, of the Constitution of the National Bee-Keepers' Association, which read as follows:

"Whenever a local bee-keepers' association shall decide to unite with this Association as a body, it will be received upon payment by the local secretary of 50 cents per member per annum, provided that the local association's membership dues are at least \$1.00."

This is carrying out the ideas embodied in our State organization, and, if adopted by our association, would admit us to membership not only in our county and State associations, but in the National also, and all for the small price of \$1.00 per annum. I would recommend that our constitution be amended so as to enable us to take advantage of this provision of the National Bee-Keepers' Association.

In my several previous messages, with which you have been afflicted, I have by turns coaxed and scolded the beekeepers of the county for carelessness, or indifference, shown by them for not taking greater interest in these meetings. The fact that you have realized but little from your bees for a couple of seasons should not deter you from aiding and strengthening our organization. The more interest you take in it the more pleasure and benefit you will derive from it. Do not wait for the secretary to urge you. Each of you has some subject—perhaps several—relating to our pursuit, upon which you have well-founded ideas. Notify the secretary, and let him put you on the program. Take pride in our organization and pride in our pursuit; it may not be the largest industry, but it is just as honorable as any. Bees are said "to have been the heralds of civilization, steadily preceding it as it advanced." That they have always been held in high esteem by man can not be questioned, as they are mentioned as far back as history extends. They figured in the symbolical history of Egypt nearly 4,000 years B. C., showing with what esteem they were held nearly 6,000 years ago. Let me repeat, take pride and interest in your pursuit, that the bee may ever remain where history and science place it—the most interesting and important member of the animal kingdom.

The Chicago Convention Picture is a fine one. It is nearly 8x10 inches in size, mounted on heavy cardboard 10x12 inches. It is, we believe, the largest group of beekeepers ever taken in one picture. It is sent, postpaid, for 75 cents; or we can send the American Bee Journal one year and the picture—both for \$1.60. It would be a nice picture to frame. We have not counted them, but think there are nearly 200 beekeepers shown.

The American Fruit and Vegetable Journal is just what its name indicates. Tells all about growing fruits and vegetables. It is a fine monthly, at 50 cents a year. We can mail you a free sample copy of it, if you ask for it. We club it with the American Bee Journal—both for \$1.10.

Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

[The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.]

Boiling Foul-Broody Hives—Newly-Hived Swarm Leaving.

1. If I boil hives and frames that have been taken from foul-broody bees, will it kill the germ? and will they be safe to put bees in again?
2. Can one tell whether the disease is foul brood or pickled brood when it is found in an early stage? If so, how?
3. Last season in swarming-time it was quite warm, and in hiving bees they would leave the hives soon after being put in. A remedy was tried of cooling the hive with cold water, and after letting it drain put the bees in, but they would leave them. Mint was tried, and had but little success. The hives were new, and had foundation on each frame. Please suggest a remedy. What do you think was the reason of their deserting?

UTAH.

ANSWERS.—1. Yes, and some good authorities say it is safe to use a hive of the kind without boiling.

2. You can hardly be certain till some advance has been made. Look up the subject in the last volume of American Bee Journal.

3. When a swarm is hived and leaves the hive, in a large proportion of cases it is because the hive is too warm. Sometimes wetting with cold water will help, but if the hive stands in the sun it may still be hot in spite of the wetting, especially if the hive is close. Let the hive be raised from the bottom-board, and perhaps the cover open a little for a day or two. Some give to a swarm a frame of brood. Bees are not likely to desert this.

Queen and Swarming Questions.

1. What percentage of queens reared by a strong colony, and then 3 days before hatching being given to nuclei, would swarm the same year?
2. What percentage of virgin queens would swarm, if allowed to hatch before being introduced to nuclei?
3. Would it be better to let each nucleus rear its own queen, providing each had 4 or 5 frames of sealed brood with one containing some eggs, and all being well covered with bees?
4. What would be the best method to increase from 30 to 55 colonies and keep swarming down?
5. Would it make any difference in the harvest if all old queens were replaced by virgin queens 45 days before the flow? or would it be better to give them fertile queens of this year's rearing? and what difference would it make in swarming?

SUBURBANITE.

ANSWERS.—1. I don't know. If you will tell me what will be done with the queens afterward, I may be able to tell something about it. Your question is such as to suggest that you suppose a queen reared in a strong colony and given to a nucleus three days before hatching will give results as to swarming quite different from one that has not been given to a nucleus. I doubt that. It is not so much what has been done before the queen begins laying, as it is what has been done after.

Let me try to answer fully the spirit of your question, for there are some misconceptions likely to be entertained in the minds of beginners. It is a commonly believed opinion that a queen of the current year's rearing is not so likely to swarm as an older queen. The belief is right. And it is wrong. It all depends. Formerly it was held as a sure thing that a queen would not swarm before six months of age. At that time it was probably correct. Latterly the opinion is held that a young black queen of the current year will not swarm, but an Italian queen may. There may be some difference between blacks and Italians in this respect, but I'm a little skeptical as to its making

much difference. I think the rule was true of blacks before Italians were introduced—not because they were blacks, but because of the treatment they had.

Before the introduction of Italians, there was little in the way of changing queens, making swarms by dividing, etc. Bees were left pretty much to their own devices. Leave them to their own devices to-day, and you may count that a young queen of the current year's rearing will not swarm till the next season, whether black or yellow. In other words, if a young queen is reared in a colony in the neighborhood of the swarming season, and left in that colony, that queen and that colony will not swarm that season. I'm not so sure that any satisfactory reason can be given, but the fact seems to be well established.

If a queen is reared this season, and after being reared is put in a hive where conditions are favorable for swarming, her age will not prevent swarming. Let a colony be on the point of swarming, or take it immediately after it has swarmed and the swarm has returned; take its queen from it, and give it another queen, and that colony will swarm without regard to the age of the queen. I once had a colony swarm and return (the queen was clipped), and I took away their queen, giving in its place a young queen that had not been laying more than two or three days. Promptly that swarm came out with the young queen not more than two days later—I think it was the next day.

If a queen is so old as to require superseding, and that superseding occurs about swarming-time under prosperous conditions, there is likely to be swarming, whereas there might have been no swarming if a young queen had been present that did not need superseding.

I haven't given you, perhaps, a satisfactory answer, but it's the best I can do.

2. Probably just the same as if they had been put in the nucleus before hatching.

3. Four or five frames of brood well covered with bees would be rather a colony than a nucleus. A queen reared therein might be a very good queen, supposing, of course, she was of good parentage, but such a plan of rearing queens would hardly be advisable if many were to be reared, because too expensive. A number of bees may be reared in one colony just as well as to let the colony rear a single cell, and when the cell is near hatching it may just as well be in a nucleus till the queen lays.

You would probably find Doolittle's queen-rearing book a profitable investment.

4. What would be best for one might not be best for another. For some, natural swarming would be best, preventing second swarms by hiving the swarm on the old stand with old colony close beside it, and removing the old colony to a new location a week later. For some the nucleus plan would be best: Start a sufficient number of nuclei, and from time to time give to each nucleus a frame of brood with adhering bees, or brood only, planning to give just enough help to build each nucleus up to good strength for winter.

5. It would probably make a big difference to give a virgin queen 45 days before the flow—so great a difference that you would not be likely to try it a second time. The harvest with you is likely to begin somewhere about June 10. Forty-five days before that time would be in the latter part of April. As far north as northern Illinois you will hardly succeed in rearing good queens by that time. That is objection enough of itself. To put a virgin queen in a colony April 25th would stop the laying and brood-rearing at a time when it is important to have it pushed to the ability of the colony. That is also a sufficient reason of itself. Neither would it be wise to think of giving a young laying queen in April. It would make chances for swarming somewhat less, but not enough less to overbalance the disadvantage.

Out-Apiary and Swarming—Feeding for Winter.

1. How could an out-apiary be managed where daily attention could not be given to it, mainly the swarming question, possibly 25 or 30 colonies, in a fine honey locality? Would the bee-entrance guard on each hive prevent swarming? What would be the result if they did swarm, and were lost, as long as the remainder did well?

2. What would be a fair share (of honey) to give to a person for allowing me to place 10 or 12 colonies on his farm, everything to be furnished by me, he only to see to the shade-boards, etc., as he does not understand hiving swarms or bees at all?

3. What is the best time for feeding sugar syrup, for

winter use? and how can you feed thru the winter in case of necessity? Some time since one colony starved to death for lack of food, not knowing how to feed syrup, but instead I placed super with comb honey on the hive, but it seemed to do no good. They were on the summer stands.

4. Can you name one or two good feeders, and tell how to use them?

5. Can extracting be done thru the winter as well as in the honey season? In fixing frames for extracting, would medium (full sheets) brood foundations be right? and should they be wired in?

In my short experience I have found that the bees in hives not shaded, begin work earlier, and also they work later than those that are shaded.

WASHINGTON BEGINNER.

ANSWERS.—1. Bee entrance guards would not in the least prevent swarming. It only prevents the queen from going with the swarm, and without a queen they would not leave. It would be just as well for them to swarm and be lost "as long as the remainder did well," but unfortunately the remainder will not do as well. Entrance guards might be safely used if you could visit the place as often as once a week, for the queens would be held in the traps awaiting your treatment. Perhaps you might be best suited to have such large hives with so much room in the extracting-supers that the amount of swarming need not be considered.

2. That question is not easily answered, but at a guess it might do to give him honey enough for use on his own table. The amount of compensation would not be exactly in proportion to the number of colonies. A man would just about as soon have 10 colonies sitting on his ground as one. In some cases a man might be willing to pay for having bees on his place for the sake of having his fruit fertilized.

3. Just as soon as you are satisfied no more surplus will be stored. In some places—indeed in a good many places—that might be in the last of August. That gives time to have the syrup well ripened and put in proper shape for winter. In any case, try to have all feeding done before September closes.

In case of necessity in winter, use comb honey or sugar candy, making sure that the food is so close to the bees that they will crawl directly upon it. Don't think of feeding syrup in winter.

4. Root's A B C of Bee-Culture gives the Miller feeder first place if the feeding is to be done on top. Put the feeder on top the same as a super; put in syrup and cover over. If the feeding is done early enough, I prefer a plan that is still less trouble. Put dry granulated sugar in the feeder, and then pour hot or cold water on it. The bees will do the rest. If you prefer to feed at the hive-entrance, the Boardman feeder is one of the best.

5. It is just as easy to extract in winter as in summer, if the combs are just as warm. If kept in a very warm room for 24 hours, you will likely be able to extract. If you can hang them overhead in the kitchen they will stand a good chance for heat.

"The Hum of the Bees in the Apple-Tree Bloom" is the name of the finest bee-keeper's song—words by Hon. Eugene Secor and music by Dr. C. C. Miller. This is thought by some to be the best bee-song yet written by Mr. Secor and Dr. Miller. It is, indeed, a "hummer." We can furnish a single copy of it postpaid, for 10 cents, or 3 copies for 25 cents. Or, we will mail a half-dozen copies of it for sending us one new yearly subscription to the American Bee Journal at \$1.00.

Our Wood Binder (or Holder) is made to take all the copies of the American Bee Journal for a year. It is sent by mail for 20 cents. Full directions accompany. The Bee Journals can be inserted as soon as they are received, and thus preserved for future reference. Upon receipt of \$1.00 for your Bee Journal subscription a full year in advance, we will mail you a Wood Binder free—if you will mention it.

Please send us Names of Bee-Keepers who do not now get the American Bee Journal, and we will send them sample copies. Then you can very likely afterward get their subscriptions, for which work we offer valuable premiums in nearly every number of this journal. You can aid much by sending in the names and addresses when writing us on other matters.

* The Afterthought. *

The "Old Reliable" seen thru New and Unreliable Glasses.
By E. E. HASTY, Richards, Ohio.

WEIGHT OF NATURAL COMB.

Average weight of natural comb 10 grains to the square inch, Prof. Gillette, page 23. If we call the Langstroth frame 144 inches (usually less from being nibbled away at the bottom) the weight of the wax in a comb will be 1,440 grains, or 14,400 grains in a 10-frame hive. Now, if we assume that the 400 grains will cover the extraneous matter worked into the new comb of a hive, we have just an even two pounds of actual wax. Practically, I think they usually work in a good deal more extraneous matter than that; but on the other hand, next to the bars all around there is much more wax than 10 grains to the inch. So a fair estimate of the actual wax in a hive, providing it all could be recovered, is two pounds for 10-frame hives, and one pound 9½ ounces, nearly, for the more common 8-frame hives.

MAKING ROOM FOR WAX-SCALES.

And so D. H. Coggs shall thinks that it pays to cut slices from the combs at extracting-time to give the bees place to use their scales of wax *without building burrs*. I think he has a valuable idea—that is, valuable in long, strong runs of honey. When the combs are scant thickness, or not built down at the bottom, or when the honey-flow is short, then the cutting would be rather a waste. Page 24.

FANNING AT THE HIVE-ENTRANCE.

I think Dr. Miller, on page 25, does a pretty good job at theorizing. A bee uncertain about its reception by the guards at a hive-entrance falls to fanning at once—plain way of saying, "Don't you see, I am ready to go to work? and robbers do not work." Guess it's right. Still, let a fourth swarm come out and leave the parent hive nearly empty and pretty well demoralized as to guards; let the swarm hang an hour, till said hive gets cold—colder than it needs to be; then hive the swarm and carry it away, leaving say 50 obstinate bees determined not to leave the limb. In the course of the day it will dawn upon them what fools they are, and they will return to the alighting-board. I should expect to see them fanning together there the first thing they do. In this case there can hardly be fear, or uncertainty, and there is no need of the fanning being done—what is it? Fanning in the entrance draws outside the familiar smell of home. Perhaps that is what they want—before they have submitted to the inevitable quite enough to go in.

DOUBLE WALLS AND CHAFF ON A HOT DAY.

Mr. J. M. Rankin has got on track of a question that is of value—the actual effect of double walls and chaff on a hot day as compared with plain, single-walled hives. Thinks the working-force for a time mostly abandoned the supers of the single-walled hives. This is one of the things we want to be sure of before we are too sure of it, so repeated observations by different observers are desirable. For future comparisons Mr. R. should have given us the temperature in the shade in addition to that in the sun. Page 39.

COMB BUILT BETWEEN FINISHT COMBS.

Dr. Miller is right in his answer to "South Carolina," on page 43, that a comb built between two finisht combs in a super is apt to be very thin. Even if so much extra space is given as to obviate that trouble the alternation doesn't seem to be a good plan. Put one first-rate, finisht comb next one side of the super, then several frames with starters, then one or more partly built combs if you have them, as I mostly do; then fill the rest of the super with finisht combs. That seems to be the "how" to do it, providing you don't want the bother of having them built below.

Queenie Jeanette is the title of a pretty song in shee-music size, written by J. C. Wallenmeyer, a musical beet keeper. The regular price is 40 cents, but to close out the copies we have left, we will mail them at 20 cents each, as long as they last. Better order at once, if you want a copy of this song.

GENERAL ITEMS

Feeding Bees for Winter.

Our bees went into winter quarters in debt to us. We had to feed about two-thirds of the colonies late in the fall, and unite many weak ones. If we had not fed they would have had very little honey to winter on. A friend about 30 miles from here fed his bees in November to keep them from starving.

We took only about 300 pounds from 140 colonies. We united some in the fall so now we have only 98, but as their fall honey was gathered from decaying fruits, etc., I fear they will not winter as well as they usually do. I am sure they winter better on sugar syrup if fed early and well sealed, than they will on such honey as they gathered last fall.

It has been so dry for the past few years that many bees in this locality have died. Some years our crop has been cut short by people spraying fruit-trees while in bloom.

MRS. L. C. AXTELL.
Warren Co., Ills., Jan. 21.

Something About Bumble-Bees.

On page 44 I notice a letter written by S. T. Pettit, in regard to bumble-bees in winter. I presume the majority of people think they winter here, but I think differently. I will be 67 years old in three more days if I live so long; I was raised on a farm and still live on one, but I have never been able to find a nest of bumble-bees in winter. When the fall of the year comes, and the weather begins to get cool, I have seen them disband and leave their summer nests. I don't know where they go, but I think the queen goes South. My reason for thinking this is that I have never seen a bumble-bee in the spring until the weather had become quite warm, and the flowers had begun to bloom. The queen starts her nest and increases very fast. If they stayed here all winter I should think they would come out as soon as the weather began to get warm, as do the honey-bees, green flies, and other insects.

There are three sizes of bumble-bees—queens, workers, and drones. The drones have very long bodies and are

RUMELY ENGINES

—either traction, portable or semi-portable represent the greatest value that can be crowded into a machine of this kind. Simple or compound 8 to 20 h.p. Unequalled for threshing, wall drilling, saw mills, feed grinders, etc. Make also superior threshers, horse powers, saw mills, etc. Illustrated catalog mailed free.

M. Rumely Co., LaPorte, Ind.

Please mention Bee Journal when writing.

SEEDS

VEGETABLE and FLOWER. Everything in the Nursery and Florist's line. Direct deal with us will insure you the best and save you money. Mail size postpaid, larger by freight or express, safe arrival and satisfaction guaranteed. Try us. A valuable 168 page Catalog for the asking. 47 years. 1000 acres. 44 greenhouses.

THE STORRS & HARRISON CO.,
Box 285, PAINESVILLE, OHIO.

Please mention Bee Journal when writing.

Gleanings in Bee-Culture! Extraordinary Offer.

Gleanings for Jan. 1st contains these Special Articles:

Queen-Rearing in France,
—by—
Giraud-Pabou

314 queens from one hive.
How it was done.
Illustrated by 3 half-tone engravings.

Candied vs. Bottled Liquid Honey,
by Chalon Fowls

Figuring up the profits on bottled honey.
Illustrated.

Wintering Bees in Clamps,
(From Bee-Keepers' Review)

—by—
W. Z. Hutchinson

Four illustrations.
No one is better qualified perhaps than Mr. Hutchinson to write on this subject. His many years' experience wintering bees in Michigan should give weight to his opinion.

Conversations
—with—
Doolittle

Those who have read bee-literature for years always find Doolittle's writings full of practical information. Those who are not familiar with his writings are invited to read a series of practical articles on general topics relating to bee-culture under the title, "Conversations with Doolittle."

Gleanings for Jan. 15th.

Co-Operative Organized Work,
by R. C. Aikin

Its benefits demonstrated; The Colorado Honey-Producers' Association an information scheme; The work of the Association outlined.

An Extracting Outfit, by W. A. Gilstrap

Illustrated.

Mintle's Lightning Section-Folder

Illustrated.

Stray Straws,
—by—
Dr. C. C. Miller,
Every Issue

These "Straws" appear in every issue of Gleanings, constituting one of its most valuable features. Dr. Miller reviews nearly all of the bee-journals published, American and Foreign, and readers of Gleanings get the benefit in these "Straws," thereby receiving much valuable information published in the Foreign journals.

Pickings from Our Neighboring Fields,
by Stenog, Every Issue

For several years Gleanings readers have been privileged twice a month to enjoy short squibs from this writer's pen. Not only does he give us articles full of value gleaned from other journals, but they are so enlivened by his vein of humor that they are eagerly read by all.

Gleanings for Feb. 1st.

Our Honey-Bottling Symposium,
Fully Illustrated, by

G. A. Deadman,
Earl C. Walker,
and Walter S. Pouder

How to wash bottles; Filling with hot honey or cold; Bottles with corks or self-sealing tops; Temperature of honey to be bottled.

The right kind of honey for the purpose; Mixing honeys to secure a flavor; Why honey should be heated in the bottles.

Size and construction of vats for heating the bottles of honey; Tumblers vs. jars or bottles.

The Personnel of the Utter Trial
by E. R. Root

A full review of this celebrated case of Utter vs. Utter, or Bees vs. Peaches.

The Belgian-Hare Business,
by W. K. Morrison,
of Devonshire, Bermuda

A fair statement; Extravagant statements; Bees and rabbits not a good combination.

Co-operative Organization,
by R. C. Aikin

Plans outlined; Intelligence bureau; Why simple co-operation fails; Business must be at the bottom; Government's duty; A continuation of this writer's article which appeared in Jan. 15th Gleanings.

Cuba,
by The American Tramp

This writer has been in Cuba some two years, and writes understandingly.

SPECIAL OFFER.—Each one of the issues mentioned above should be worth a dime to every bee-keeper, but we will send all three for only 10 cents. Hurry along your order before they are all gone.

BETTER YET.—Send us 25 cents at once, and we will send you Gleanings in Bee-Culture 12 issues, 6 months, beginning Jan. 1st. Feb. 15th will contain several articles on

Cuba,
by Harry Howe, Robert Luaces,
and A. L. Boyden

Mr. Howe was formerly with Coggeshall, of New York, and has already given Gleanings readers glimpses of Cuban bee-keeping. Mr. Luaces, of Puerto Principe, considers that conditions are not well known and gives information somewhat different from other writers. Mr. Boyden begins a series of articles entitled, "Glimpses of Cuba and Cuban Bee-Keeping," illustrated by photos taken by himself.

Remember. Six months for 25 cents, and your money refunded July 1st if you are not satisfied. Mention the American Bee Journal.

THE A. I. ROOT COMPANY, Medina, Ohio.

quite yellow, being market better than most of the Italians in this country. The workers are smaller and darker, and are great fighters; I don't know whether the queens fight or not, but I think they do. The whole colony works for a living—the drones as well as the rest. I do not know that they carry in any stores, but I have seen them working on thistles. Like the honey-bee drones they have no sting. I have heard of boys catching them and sucking the honey out of them, but I have never tried it.

Twice in my life I have found a single bumble-bee three or four inches down in the ground, under leaves or trash, but I don't believe it would have come out the next spring alive unless there had been a great deal of salt put on it, and maybe not then.

The hornets also go South, or else they all die, and a new queen comes from the South. They don't make their appearance here until about June, then one starts a nest and keeps building up until fall, just as the bumble-bees do, then they all die or disappear.

The past season was the poorest we have had in 30 years. I have been in the bee-business for nearly that length of time, but have never seen anything like it. There was a pretty fair growth of white clover but it secreted no nectar. I don't think there was a pound of surplus honey gathered in this neighborhood. We have had no honey worth mentioning in the last four years, but we still live in hopes, tho it seems a long time coming.

THOMAS WALLACE.

Adams Co., Ill., Jan. 22.

Poor Prospects for Next Season.

The prospects for a good honey season in this locality are away below par again, I am sorry to say. We have had only two fairly good rains thus far this winter, and there is a deficiency of over two inches of normal precipitation, which means a good deal in this land of "excess of sunshine."

Since reading of the Bee Journal's loss by fire I take pleasure in forwarding my dollar for renewal subscription, and hope all bee-keepers will be prompt in coming to the assistance of the journal which is devoted solely to their interests. The three successive poor honey seasons here have made it seem best for me to drop three other bee-papers, but I must retain at least one to keep in touch with the bee-keeping world.

F. C. WIGGINS.

San Diego Co., Calif., Jan. 19.

Handled Bees 50 Years—Rearing Queens.

I am 62 years of age and have handled bees for the past 50 years. I lived in Royalton, Vt., until 13 years ago, when I came to Florida. I commenced using the Langstroth hives and frames in 1865. In 1867 I bought 10 colonies of Italian bees bred from imported queens. During the past two years I have introduced about 400 queens very successfully. For the 10 years that I have kept bees in Florida I have averaged 100 pounds of extracted honey to the colony, and increased from 12 to 400 colonies.

My bees do not always behave as nicely as the bees belonging to some



BEE-KEEPERS' SUPPLIES

THE FINEST IN THE WORLD.

Our New 1901 Fifty-Two Page Catalog Ready.

Send for a copy. It is free.

G. B. LEWIS COMPANY....

WATERTOWN, WISCONSIN, U. S. A.



"Profitable Poultry Keeping"

IN ALL ITS BRANCHES." This is the title and theme of our new Year Book. Contains 192 pages, 8 1/2 in. x 11 in. new and original illustrations of best poultry farms, buildings, etc. in the country. Deals with every phase of the poultry industry in an instructive and profit-bringing way. Treats also of the famous non-moisture, self-ventilating and regulating **CYPHERS INCUBATORS**, hatch any other in three or more tests or money refunded. Sent for 10c in stamps. Ask for book 34. Circular and prices free. Address nearest office. **CYPHERS INCUBATOR CO.**, Chicago, Weyland, N. Y., Boston, Mass.

Please mention Bee Journal when writing.



MARILLA INCUBATORS and BROODERS

represent in their construction the best material, best workmanship and finish and the best general plans we know how to bring together in such a machine. For this reason we say to our customers that if they are not found exactly as represented and don't do all we claim for them after a thorough trial, it is no sale. Eleventh year on the market. We make both **Hot Water** and **Hot Air**—take your choice. So simple a child can run it. Send 3c. in stamps for catalogue.

MARILLA INCUBATOR CO., BOX 31 ROSE HILL, N. Y.

Please mention Bee Journal when writing.

Good Instruments.

Don't confuse these instruments with cheap "largin counter" offers. They are high grade, fully guaranteed instruments. **VIOLIN**—Amati model, choice of 3 colors, dark brown, light red or amber, full ebony trimmed, Brazil wood bow, pearl slide, full leather bound canvas case, extra set of strings, rosin, etc., worth \$80. My Price \$6.97. **GUITAR**—Solid Rosewood, standard size, neatly inlaid, Spanish cedar neck, celluloid front, ebony finger board, best quality patent head. Full leather bound canvas case. Regular price \$18. My Price \$7.65. **MANDOLIN**—Solid Rosewood, 19 ribs, celluloid front; veneered head piece, handsomely inlaid. Elegant French Polish. Patent head, engraved tail-piece. Worth \$15. My Price, Only \$7, with leather bound case, extra set of strings and tortoise pick. Send for circulars of high grade musical instruments of all kinds.

Charles N. Ball The Auditorium, CHICAGO.

Please mention Bee Journal when writing.



Make More Milk-Money

If you keep one or more cows you should read **Dairy and Creamery**, the great semi-monthly cow-keeper's paper, devoted to more and better milk. It's sensible and practical. 50 cents a year, including valuable premiums. Agents wanted for publications and useful novelties. Write for free samples and terms. **DRAPER PUB. & SUPPLY CO.**, Chicago, Ill.

YOU KNOW YOU ARE RIGHT

when you buy one of our celebrated **NEW PREMIER Incubators** because you can try before you pay for it. It was good enough to take First Prize at World's Fair. Simple, sure, efficient. Send 5c. postage for Catalogue and "Poultry Helper." Also sole makers of Simplicity Incubator. **COLUMBIA INCUBATOR CO.**, 5 Water St., Delaware City, Del.

POULTRY BOOK FREE, 64 pages, illustrated with 3 mos. trial subscription to our paper, 10c INLAND POULTRY JOURNAL, Indianapolis, Ind.

30 DAYS FREE TRIAL **ISN'T THIS FAIR?** You get this **Bantam Hatcher**, fill it with eggs and test it thoroughly. If satisfied you pay us \$5 for it. It often hatches 50 chicks from 50 eggs. Send 4 cents for Catalogue No. 53. **Buckeye Incubator Co.**, Springfield, Ohio.

Please mention Bee Journal when writing.

OLDS The Seed Potato Man

grows his own potatoes and guarantees them true to name. Has all standard sorts and the very best of the tested new varieties at the lowest prices. **Olds' Field and Garden Seeds** are of equal merit as to purity and quality. Leading farm seeds of best varieties. Also vegetable and flower seeds. Why not buy seeds direct from the grower? Catalogue free. **L. L. OLDS**, Drawer D, CLINTON, WIS.

PAN-AMERICAN EXPOSITION.

On the American Shore of the Niagara River on the outskirts of the City of Buffalo, N. Y., within short distance of Niagara Falls, from May 1 to Nov. 1, 1901, will transpire one of the most important events in the history of the Western Hemisphere. The curtain of the great show will be raised, which will present the opening scene in a blaze of glory, never before equaled in the history of America. This colossal aggregation of exhibits will show the wonderful achievements of science, exemplified by the matchless genius of the two Americas, and fittingly portray their high educational values.

The Nickel Plate Road has issued an attractive and valuable descriptive folder pamphlet, elaborately illustrating the Pan-American Exposition, fully describing this important event, and elaborately illustrating the buildings and grounds.

The Nickel Plate Road is the short line between Chicago and Buffalo. That popular passenger line offers competent train service between Chicago and Buffalo, as it does also between Chicago and New York City, Boston and all points East, with modern trains, supplied with the latest designs of Drawing-Room Buffet Pullman Sleeping-Cars, and Dining-Car service of the highest order. The Nickel Plate Road offers meals in its dining-cars on the popular American Individual Club System, ranging in price to suit the appetite, from 35 cents to one dollar, but no meal at a cost greater than one dollar. No excess fares are charged on any train of the Nickel Plate Road.

Call on any ticket agent for a Pan-American Folder of the Nickel Plate Road, or address, John Y. Calahan, General Agent, 111 Adams St., Chicago, Ill. Parties desiring hotel or rooming accommodations, at Buffalo or Niagara Falls, during any period of the Pan-American Exposition, are invited to apply by letter or otherwise to F. J. Moore, General Agent, Nickel Plate Road, 291 Main St., Buffalo, N. Y.

No. 3-7A1t

GINSENG 610. In plants produce \$4.00.10 in 10 years. Book telling how to grow it, 4c. Lakeside Ginseng Gardens, Amber, N. Y.

10 DAYS TRIAL

Buggy Announcement Extraordinary.

The Kalamazoo Carriage and Harness Co. of Kalamazoo, Michigan, have adopted the plan of sending their vehicles anywhere, on 10 days free trial. They sell direct to consumers at wholesale prices and allow you to take the vehicle from the depot, hitch up to it, try the springs, running qualities, see the trimmings, finish and style before you decide to keep it. No more buying "a cat in the bag, sight unseen." They know the quality of their goods and are willing to let them sell on their merits. Write for free catalogue.

KALAMAZOO CARRIAGE AND HARNESS CO.,
Box 53 Kalamazoo, Michigan.



Maule's (35 new things for 1901) Seed Catalogue

You should, by all means, have this **most modern catalogue of modern times.** It is brimful and overflowing with good things in vegetable, farm and flower seeds, flowering plants, fruits, bulbs, etc. It contains 35 novelties in vegetables and flowers never offered before, has 136 large pages, seven handsome colored plates and hundreds of illustrations. It gives practical, up-to-date cultural directions and offers many cash prizes. The first edition alone costs over \$30,000, so while we send it free to all customers, we must ask others to send 10 cents for it, which amount they may deduct from their first order. You will make a mistake if you do not write to-day for this the Novelty Seed Book of the year. Address, **WM. HENRY MAULE, Philadelphia.**

3D4t

Please mention the Bee Journal.



50 VARIETIES.

I breed fine poultry on one of the best equipped poultry farms in the world. Send \$2 in stamps for new 1901 Book, telling all about 50 varieties, with special prices on fowls and eggs. **B. H. CREIDER, Florin, Pa.**



200-Egg Incubator for \$12.00

Perfect in construction and action. Hatches every fertile egg. Write for catalogue to-day. **GEO. H. STAHL, Quincy, Ill.**

46A25t

Please mention the Bee Journal.

of the Bee Journal correspondents, but I seem to be as successful with them as the average.

I have taken quite an interest in the different methods of rearing queens, and of introducing them; also caging and sending thru the mails. I have read many of the bee books and papers, and until recently never read any objection to rearing queens on dry sticks, caging them when full of eggs. Some think that a strong colony in the light of the honey-flow is about as good a time to rear a prolific queen as any.

H. T. GIFFORD.

Brevard Co., Fla., Jan. 19.

Nothing but Fall Honey.

Bees did not do much the past season. There was a great deal of white clover, but no honey in it to speak of. We had nothing but fall honey, and very little of that. **WM. WILSON.**

St. Joseph Co., Mich., Jan. 25.

Light Honey-Flow—Feeding Bees.

The past year was a hard one on bee-keepers in this locality. From June 1st the bees did not get a living from the flowers until about the first of September, when the asters yielded



BIG MONEY IN POULTRY

Our LARGE POULTRY GUIDE explains all. Worth \$25 to anyone.

The largest, finest and most complete book ever published in colors. Contains over 175 new illustrations, hundreds of valuable recipes and plans and HOW TO MAKE POULTRY PAY. Sent postpaid for 15 cents. **JOHN BAUSCHER, JR., Box 94, Freeport, Ill.**

Please mention Bee Journal when writing.



BIG CUT IN DRUGS

Direct to Consumers.

Our Handsome Catalog Free, costing over \$2 each, contains 144 pages, with 1500 illustrations and 15,000 articles listed, on which we guarantee to save you from 15 to 75%. Most complete book of its kind. Sent for 10c to pay cost of mailing, which will be refunded with first order. Valuable book of reference and ought to be in every household. Get it; keep it handy. **Heller Chemical Co., Dept 13, Chicago.**

"The Only Mail Order Drug House in the World."

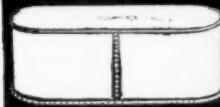
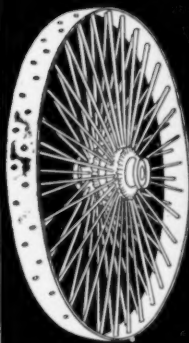
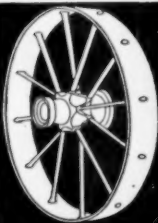
6A13t Please mention the Bee Journal.

BEE-SUPPLIES!

Root's Goods at Root's Prices—63

POUDER'S HONEY-JARS and everything used by bee-keepers. Prompt Service—low freight rate. Catalog free. **WALTER S. POUDER,** 512 Mass. Ave., INDIANAPOLIS, IND.

Please mention Bee Journal when writing.



"ELECTRIC" GOODS

Thousands of farmers all over the country know that the name "Electric" stands for the highest quality, the greatest durability, the lowest price. Everything put out of our factory carries the reputation of being "as good as money can buy."

Electric Metal Wheels

of all sizes and varieties, to fit any axle on any vehicle or farm implement, either direct or staggered oval steel spokes.

Electric Handy Wagon,

the neatest, strongest, most durable, easiest to load wagon made. Metal wheels, any width of tire, any height from 24 to 56 inches. Best angle steel hounds.

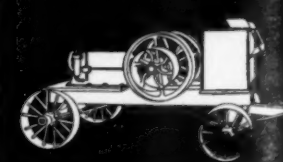
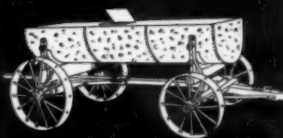
Tanks of All Kinds.

Sheep Dipping Tanks, Watering Tanks and Feed Troughs of all shapes and sizes.

Trucks

for engines, water tanks, etc. Send for new catalog. We ship our goods anywhere and guarantee to save you money.

ELECTRIC WHEEL COMPANY,
Box 16, QUINCY, ILLS.



some nectar. Some colonies had plenty for winter, but others did not, and I began in August to feed them about 800 pounds of good honey, in order to keep them from starving and get them in good condition for winter. They are wintering splendidly so far, and I hope the coming season will be a good one.

To-day is the worst day we have had so far this winter. It is snowing and blowing, and cold. I hope it will not last long.

A. J. McBRIDE.

Watauga Co., N. C., Jan. 24.

Good Honey-Crop—Introducing Queens.

My honey crop for the year 1900 was 4,500 pounds from 45 colonies, spring count, a little over one-third of which was comb honey. My average yield for 11 years has been 60 pounds per colony, about one-half of it being comb. The best yield was in 1893, when I got 114 pounds per colony, and the poorest yield was in 1899—16 pounds per colony.

Perhaps the method I use for introducing queens will be helpful to some. When I receive a queen thru the mails I put her in a Miller introducing-cage without any of the escort bees, put in some candy, and plug the hole so the workers can not get at the candy. Remove the queen that is to be superseded, and place the cage containing the queen between two of the central combs. The next day open the hive quietly, and if the bees seem friendly to the queen remove the plug, fill the hole with candy, replace the cage, and do not open the hive again for nearly a week. I have had but one failure in five years, in using this method. I formerly lost 25 percent of my queens by following the directions that came with the queens.

I believe many of the failures in introducing are caused by the escort bees being left with the queen. If the bees appear angry do not remove the plug the next day, but wait until they are friendly toward the queen.

The American Bee Journal is all right.

D. I. WAGAR.

Wayne Co., Mich., Jan. 23.

Convention Notice.

California.—The annual convention of the California State Bee-Keepers' Association, will be held in the Chamber of Commerce, at Los Angeles, Feb. 25 and 26, 1901, beginning at 1:30 p.m., on the 25th. Several valuable papers have been promised, and we expect an interesting convention.

R. WILKIN, Pres.

J. F. McINTYRE, Sec.

The Kalamazoo Carriage and Harness Company's advertisement appears in this issue, making an offer which may truly be characterized as "extraordinary." They offer to send to any reader of this paper any vehicle in their factory on 10 days' free trial, allowing you to use it during that time and thoroly test it before deciding to keep it. They certainly have unbounded faith in the quality of their goods, or they could not make such an offer. Look up their advertisement and send for Catalog, not forgetting to mention the American Bee Journal when writing.

Great Book About a Great Machine.—The new Cyphers Incubator Catalog is without exception the handsomest and most complete book ever issued in the interest of the poultry industry. It contains 224 pages (8x11 inches) with more than 200 new illustrations representing the highest art of the engraver; the cover is a symphony of delicate gray tints with just a dash of red, and the text is devoted to sensible, practical poultry talk which every poultry-raiser ought to read. It is an extremely beautiful

book and as useful and practical as it's handsome.

The Cyphers Incubator during the four years that it has been on the market, has gained a popularity and achieved a success which is nothing less than phenomenal. And yet, its success is not hard to explain. The American poultry-raisers recognized in the Cyphers the first incubators really built on a scientific plan—a plan which follows nature's method in the diffusion of heat and the retention of the moisture of the egg, and they have found by experience that it is the only incubator which has successfully solved "the moisture question" and "ventilation question"—being absolutely self-regulating in regard to heat, moisture and ventilation. Without question these two great features: self-supplied moisture and self-ventilation, were the original discoveries of Mr. Cyphers, and were brought to a practical working success by him.

The Cyphers Company puts out with every machine they sell one of the strongest guarantees we have ever seen on any machine of any kind. And the beauty of it is every poultryman in America can rest assured that it means EXACTLY WHAT IT SAYS.

We know that every one of our readers will be interested in this magnificent catalog. Send 10 cents to pay postage, and ask for Book 50. Address Cyphers Incubator Company, Wayland, N. Y., Boston, Mass., New York City, or Chicago, Ill. Please mention the American Bee Journal when writing.

Mention this Page.



EVERGREENS

Hardy sorts, Nursery grown, for wind-breaks, ornament and hedges. Prepaid, \$1 to \$10 per 100—50 Great Bargains to select from. Write at once for free Catalogue and Bargain Sheet. Local Agents wanted.

D. Hill, Evergreen, Dundee, Ill.

Please mention Bee Journal when writing.

1901—Bee-Keepers' Supplies!

We can furnish you with The A. I. Root Co.'s goods at wholesale or retail at their prices. We can save you freight, and ship promptly. Market price paid for beeswax. Send for our 1901 catalog. M. H. HUNT & SON, Bell Branch, Wayne Co., Mich.

Please mention Bee Journal when writing.

Wanted!

Two or three apiaries for cash, located in Colorado. Give full particulars in first letter, and lowest cash price; comb honey preferred.

14tf THOS. C. STANLEY & SON, Fairfield, Ill.

BEE

HIVES, SECTIONS AND ALL BEE-KEEPERS' SUPPLIES.

Big Catalog Free. Write now. Leahy Mfg. Co., 2415 Alta St., St. Louis, Ill.

6Atf Mention the American Bee Journal.

Dittmer's Foundation!

Retail—Wholesale—Jobbing.

I use a PROCESS that produces EVERY ESSENTIAL necessary to make it the BEST and MOST desirable in all respects. My PROCESS and AUTOMATIC MACHINES are my own inventions, which enable me to SELL FOUNDATION and

Work Wax Into Foundation For Cash

at prices that are the lowest. Catalog giving Full Line of Supplies,

with prices and samples, free on application. BEESWAX WANTED.

GUS. DITTMER, Augusta, Wis.

Please mention Bee Journal when writing.

CAREER AND CHARACTER OF ABRAHAM LINCOLN.

An address by Joseph Choate, Ambassador to Great Britain, on the career and character of Abraham Lincoln—his early life—his struggles with the world—his character as developed in the later years of his life and his administration, which placed his name so high on the world's roll of honor and fame, has been published by the Chicago, Milwaukee & St. Paul Railway, and may be had by sending six (6) cents in postage to F. A. Miller, General Passenger Agent, Chicago, Ill.

6A3t

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, Jan. 19.—Honey is selling slowly; this applies to all grades with the exception of white clover and basswood comb honey, which sells readily at 16c providing it grades No. 1 or better. All other kinds of white comb honey sell at from 14@15c, and candied white comb at from 8@10c; travel-stained and off-grades of comb, 13@14c; amber, 12@13c; amber extracted, 7@7½c; dark and buckwheat comb honey, 9@10c. Extracted, white, 7c, 7½@8c; basswood and white clover bringing the outside prices; buckwheat and other dark grades, 6@6½c. Beeswax, 28c.

R. A. BURNETT & CO.

KANSAS CITY, Jan. 22.—Fancy white comb, 15@17c; amber, 13@14c; dark, 9@11c; demand good. Extracted, 7@9c; demand quiet. Beeswax, 28@30c.

W. R. CROMWELL PRODUCE CO., Successors to C. C. Clemons & Co.

BUFFALO, Jan. 17.—All kinds of honey are so quiet it is difficult to make a sale. Occasionally some sells, fancy 14@15c; few, 16c; choice and No. 1, 12@13c; few, 14c; but dark, 9@10c, and all kinds in liberal supply; some may have to be reconditioned. Extracted, 7@8c, and not wanted in Buffalo. Beeswax, 22@27.

BATTERSON & CO.

ALBANY, N. Y., Jan. 18.—Honey market is dull on all grades now, with light stock and light demand. White comb in good condition, not candied, 15@16c; mixt, 13@14c; buckwheat, 12@12½c; mixt, 11@11½c. Extracted, white, 8@8½c; mixt, 6@6½c; dark, 5½c.

H. R. WRIGHT.

BOSTON, Feb. 8.—Fancy No. 1 white in cartons, 17c; A No. 1, 16c; No. 1, 15@16c, with a fairly good demand. Absolutely no call for dark honey this year. Extracted, white, 8@8½c; light amber, 7½@8c. Beeswax, 27c.

BLAKE, SCOTT & LEE.

CINCINNATI, Jan. 16.—Market very quiet. No change in prices. Fancy white comb sells for 16c. Extracted, dark, sells for 5½c, and better grades bring 6½@7½c. Fancy white table honey brings from 8½@9c.

C. H. W. WEBER.

NEW YORK, Dec. 22.—Fancy white, 15@16c; No. 1 white, 14c; No. 2 white 12@13c; amber, 12c; buckwheat, 10@11c. Extracted in fairly good demand at 7½@8c for white, and 7c for amber; off grades and Southern in barrels at from 65@75c per gallon, according to quality. Not much demand for extracted buckwheat as yet. Some little selling at 5½@6c. Beeswax firm at 28 cents.

Demand continues good for comb honey; supply fairly good. Extracted in fair demand with enough supply to meet requirements.

HILDRETH & SEGELKEN.

DETROIT, Jan. 19.—Fancy white comb, 15@16c; No. 1, 13@14c; dark and amber, 12@13c. Extracted, white, 7@7½c; amber and dark, 6@6½c. Beeswax, 26@27c.

M. H. HUNT & SON.

SAN FRANCISCO, Jan. 9.—White comb 13@14 cents; amber, 11½@12½c; dark, 8@9c. Extracted, white, 7½@8c; light amber, 6½@7½c; amber, 5½@6½c. Beeswax, 26@28c.

Stocks of all descriptions are light, and values are being as a rule well maintained at the quoted range. Firmness is naturally most pronounced on light amber and water white honey, the latter being in very scanty supply.

HONEY MARKET.—We may have a customer within a short distance of you who wants your honey or beeswax. We are in close touch with all the markets; therefore write us regarding your crop, stating quantity, quality, and lowest cash price. References—Either Bank here for any business man in this city.

THOS. C. STANLEY & SON, Fairfield, Ill.

—DO YOU WANT A— High Grade of Italian Queens OR A CHOICE STRAWBERRY?

Send for descriptive price-list.

D. J. BLOCHER, Pearl City, Ill.

47A26t Mention the American Bee Journal.

For Sale Extracted Honey

from Alfalfa—60-pound cans at 7c; and smaller cans.

5A4t D. S. JENKINS, LAS AMINAS, CAL.

Please mention Bee Journal when writing.

We have a Large Stock on hand
and can ship promptly.

SEND US YOUR ORDERS FOR

Hives, Extractors

OR ANYTHING YOU WANT IN THE
BEE-KEEPING LINE.

WE MAKE ONLY THE BEST.

Our Falcon Sections and New Process Foundation are ahead of everything, and cost no more than other makes. New Catalog and copy of THE AMERICAN BEE-KEEPER free. Address,

THE W. T. FALGONER MFG. CO.,
JAMESTOWN, N. Y.

W. M. GERRISH, East Nottingham, N. H., carries a full line of our goods at catalog prices. Order of him and save freight.

Please mention Bee Journal when writing

SWEET CLOVER

And Several Other Clover Seeds.

We have made arrangements so that we can furnish Seed of several of the Clovers by freight or express, at the following prices, cash with the order:

| | 5lb | 10lb | 25lb | 50lb |
|----------------------------|--------|--------|--------|--------|
| Sweet Clover (white)..... | 60c | \$1.00 | \$2.25 | \$4.00 |
| Sweet Clover (yellow)..... | \$1.50 | 2.80 | 6.25 | 12.00 |
| Crimson Clover..... | 70c | 1.20 | 2.75 | 5.00 |
| Alsike Clover..... | 90c | 1.70 | 3.75 | 7.00 |
| White Clover..... | 90c | 1.70 | 3.75 | 6.50 |
| Alfalfa Clover..... | 80c | 1.40 | 3.25 | 6.00 |

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight, or 10 cents per pound if wanted by mail.

GEORGE W. YORK & CO.
144 & 146 Erie Street, CHICAGO, ILL.

If you want the Bee-Book

That covers the whole Apicultural Field more completely than any other publish, send \$1.25 to

Prof. A. J. Cook, Claremont, Cal.,

—FOR HIS—

"Bee-Keeper's Guide."

Liberal Discounts to the Trade.

California! If you care to know of its Fruits, Flowers, Climate or Resources, send for a sample copy of California's Favorite Paper—

The Pacific Rural Press,

The leading Horticultural and Agricultural paper of the Pacific Coast. Publishes weekly, handsomely illustrated, \$2.00 per annum. Sample copy free.

PACIFIC RURAL PRESS,

330 Market Street, SAN FRANCISCO, CAL.

Low Rates West and Northwest.

On Feb. 12th, and on each Tuesday until April 30th, the Chicago, Milwaukee & St. Paul Railway will sell one-way second-class tickets at the following very low rates:

| | |
|-------------------------------------|---------|
| To Montana points, . . . | \$25.00 |
| To Nor. Pacific Coast points, . . . | 30.00 |
| To California, | 30.00 |

These tickets will be good on all trains, and purchasers will have choice of 6 routes and 8 trains via St. Paul, and 2 routes and 3 trains via Missouri River each Tuesday. The route of the Famous Pioneer Limited trains and the U. S. Government Fast Mail trains.

All ticket Agents sell tickets via the Chicago, Milwaukee & St. Paul Railway, or for further information address F. A. Miller, General Passenger Agent, Old Colony Building, Chicago. 6A3t

24th Year Dadant's Foundation. 24th Year

We guarantee
satisfaction. **

What more can anybody do? **BEAUTY, PURITY, FIRMNESS, No SAGGING, No LOSS. PATENT WEED-PROCESS SHEETING.**

Why does it sell
so well? **

Because it has always given better satisfaction than any other. Because in 23 years there have not been any complaints, but thousands of compliments.

Send name for our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

BEE-KEEPERS' SUPPLIES OF ALL KINDS.

Very fine pure-bred **BARRED PLYMOUTH ROCK** Chickens and Eggs for sale at very low prices.

LANGSTROTH on the HONEY-BEE—Revised

The classic in Bee-Culture—Price, \$1.25, by mail.

Beeswax wanted at all times.

CHAS. DADANT & SON, Hamilton, Hancock Co., Ill.

326 FIRST PREMIUMS SEND FOR FREE CATALOGUE.
Prairie State Incubator Co.,
Homer City, Pa.

47A17t Please mention the Bee Journal

BEES QUEENS
Smokers, Sections, Comb Foundation
And all Apiculture Supplies
cheap. Send for FREE Catalogue.
E. T. FLANAGAN, Bellville, Mo.



Tennessee Queens!

Fine lot of Choice Tested Queens reared last season, daughters of select imported and select golden queens, reared 3 1/2 miles apart, and mated to select drones, \$1.50 each; untested warranted Queens, from same breeders, either strain, 75c each. No bees owned nearer than 2 1/2 miles. None impure within 3, and but few within 5 miles. 28 years' experience. Discount on large orders. Contracts with dealers a specialty. **JOHN M. DAY S.**

6A26t

Spring Hill, Tenn.

Bee-Supplies

We are distributors for ROOT'S GOODS AT THEIR PRICES for southern Ohio, Indiana, Illinois, West Virginia, Kentucky, and the South.

MUTH'S SQUARE GLASS HONEY-JARS, LANGSTROTH BEE-HIVES, ETC.

Lowest Freight Rates in the country. Send for Catalog.

C. H. W. WEBER,

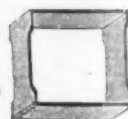
Successor to C. F. MUTH & Son,

2146-48 Central Ave., CINCINNATI, O.
Please mention Bee Journal when writing



Bee-Hives and Honey-Boxes

in car lots, wholesale or retail. Now is the time to get prices. We are the people who manufacture strictly first-class goods and sell them at prices that defy competition. Write us to-day.



Inter-State Box and Manufacturing Company,
HUDSON, WIS.

Please Mention the Bee Journal when writing Advertisers ****

The Emerson Binder.

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 60 cents; or we will send it with the Bee Journal for one year—both for only \$1.40. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this "Emerson" no further binding is necessary.

GEORGE W. YORK & CO.,
118 Michigan Street, CHICAGO, ILL.

Fred W. Muth & Co.

FRED W. MUTH. CHARLES J. HAUCK.
P. W. J. HAUCK.

One Minute, Please!

We beg to announce that we have gone into the bee-supply and honey business.

Being practical bee-keepers who understand the supply business thoroughly, and know pretty well the wants of the bee-keepers, the firm will give its exclusive attention to the bee-supply business and the promotion of the sale of honey in this vicinity.

After visiting all the important manufacturers, we have selected a line that will give the best of satisfaction. Our location—adjoining the Suspension Bridge—is most central, and being only four blocks south from the Fountain Square, is right down in the business part of the city, and especially handy for our Kentucky friends: our facilities for prompt service are perfect; and our prices are consistent with good business judgment. Our CATALOG has many new features. Send us your name so we can mail you one.

FRED W. MUTH & CO.

Southwest Cor. Front and Walnut Sts.,
CINCINNATI, OHIO.

5A1f

Please mention the Bee Journal.